

Science Data Production Confidence Test - SFQ2

Test Objectives:

This test verifies requirements associated with the science data production functionality of the ECS. The objectives of this test are:

- to verify at each DAAC that the science operations team can plan, schedule, and execute a representative typical daily production run (one that will stress the system), including re-processing requests, using Autostys with dependencies. Production reports are generated and verified. Where appropriate the push of data from DAAC-to-DAAC is verified. Additionally, end user notification is verified
- to verify at appropriate DAACs the QA functionality as it relates to the data production environment; the science operations team can conduct quality assurance (QA) checks on completed data, and the investigator team can conduct remote QA from the Science Computing Facility (SCF). The information management service (IMS) is queried to verify proper metadata generation.
- to verify that at the appropriate DAAC, a science data production run utilizing PGEs with InterDAAC dependencies, and dynamic acquire and run.
- to verify at each DAAC the ability to implement appropriate actions in response to various emergency / priority situations. This includes but is not limited to, hardware failure, overload of system resources, and systems maintenance.

Test Configuration:

Hardware and software configurations at each ECS site are managed and tracked by the M&O organization at that site. The most current configuration status report will be obtained prior to the start of testing and be referenced in the test report.

The data flow for test SFQ2.006 and SFQ2.007 is depicted in exhibit 2-1.

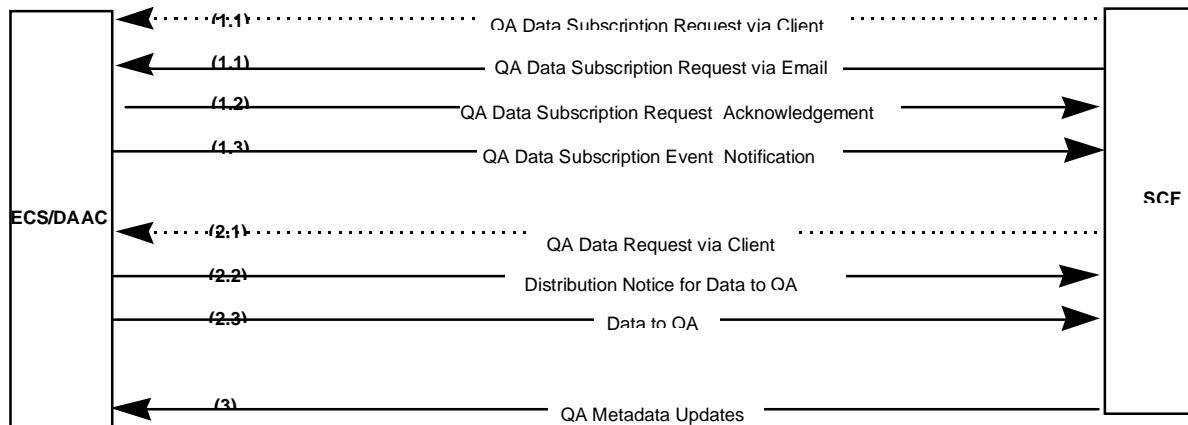


Exhibit 2-1. Data Flows for QA of Data Products

Participants and Support Requirements:

Participants:

M&O Support at the GSFC, LaRC, EDC, and NSIDC DAACs for B0 and B1.

Communications:

Voice - NA

Data - LAN used for data transfers within ECS.

IP Addresses: TBS

Equipment and Software:

Hardware: Science Data Server, Storage Management Server

Software: Planning Subsystem, Data Processing Subsystem, Product Queuing and Management - Autosys, QA Client Support, Access Control & Management, Working Storage, Data Repository, and Science processors

Test Tools:

LoadRunner for performance testing, if unable to generate a production plan to stress system resources..

Test Data:

| Description / Characteristics | Source | File/script name & Location |
|-------------------------------------|------------|-----------------------------|
| CERES Operational Science S/W Pkg. | LaRC DAAC | |
| MISR Operational Science S/W Pkg. | LaRC DAAC | |
| MOPITT Operational Science S/W Pkg. | LaRC DAAC | |
| MODIS Operational Science S/W Pkg. | GSFC DAAC | |
| MODIS Operational Science S/W Pkg. | EDC DAAC | |
| MODIS Operational Science S/W Pkg. | NSIDC DAAC | |

Functional Thread Test Case Mapping

| Thread ID: | SFQ2-SMA | Thread Description: | Last Modified: |
|-------------------------------|---|--|----------------|
| | | <p>Verify at each DAAC that:</p> <ol style="list-style-type: none"> 1) The science operations team can plan, schedule and execute a representative daily production run, including re-processing requests, using Autosys with dependencies. 2) The science operations team can conduct quality assurance (QA) checks on completed data. 3) The investigator team can perform remote QA from the Science Computing Facility (SCF). 4) The information management service (IMS) can be queried to verify proper metadata generation. 5) The end user notification is performed properly. 6) Emergency procedures during data production are exercised (e.g. When resources become unavailable, what happens to a typical production scenario). | 6/13/97 |
| Test Case ID: | SFQ2-SMA.001 | Test Case Description: | Last Modified: |
| | | <p>GSFC DAAC Production Run</p> <p>This test verifies the operability of science data production at the GSFC DAAC. A production run, which is representative of a typical daily production run (one that will stress the system) using MODIS PGEs, is scheduled using AutoSys. Data dependencies are exercised. The test is successful if the product is produced or the run waits for data availability. Production reports are generated and verified. Push of appropriate MODIS data from GSFC DAAC to EDC DAAC and NSIDC DAAC is also verified. End user notification is also verified .</p> | 6/19/97 |
| <u>Mapped Requirements:</u> | DADS0901#B,DADS2110#B,DADS2120#B,DADS2010#B,EOCD0560#B,EOSD0720#B,ESN-120#B,IMS-1645#B,IMS-1700#B,PGS-0180#B,PGS-0250#B,PGS-0325#B,PGS-0330#B,SDPS0015#B,SDPS0016#B,SDPS0130#B,SMC-1300#B,SMC-1325#B,SMC-1600#B,S MC-1610#B,SMC-3335#B,SMC-3350#B,SMC-3385#B | | |
| <u>Prerequisite</u> | | DADS0901#B,DADS2110#B,DADS2120#B,DADS2010#B,EOCD0560#B,EOSD0720#B,ESN-120#B,IMS-1645#B,IMS-1700#B,PGS-0180#B,PGS-0250#B,PGS-0325#B,PGS-0330#B,SDPS0015#B,SDPS0016#B,SDPS0130#B,SMC-1300#B,SMC-1325#B,SMC-1600#B,S MC-1610#B,SMC-3335#B,SMC-3350#B,SMC-3385#B | |
| <u>Conditions</u> | | SFQ1 has completed execution (needed input files if any, ingested for PGEs to be run). | |
| <u>Expected Test Results:</u> | | | |
| | | <p><u>Test</u></p> <p>Production plan using integrated MODIS PGEs, some with PGE chaining (i.e. PGEs dependent on the completion of Runfor input data) and the execution of multiple PGEs at the same time.</p> | |
| | | <p><u>Assumptions and Constraints</u></p> <p>which PGEs have successfully undergone SSI&T and whether input data is available for the PGEs. This information will be used to direct the development of production plan that meets the test criteria.</p> | |

Functional Thread Test Case Mapping

| Thread ID: | SFQ2-SMA | Thread Description: | Last Modified: |
|---------------------------------|--|--|--|
| | | <p>Verify at each DAAC that:</p> <ol style="list-style-type: none"> 1) The science operations team can plan, schedule and execute a representative daily production run, including re-processing requests, using Autosys with dependencies. 2) The science operations team can conduct quality assurance (QA) checks on completed data. 3) The investigator team can perform remote QA from the Science Computing Facility (SCF). 4) The information management service (IMS) can be queried to verify proper metadata generation. 5) The end user notification is performed properly. 6) Emergency procedures during data production are exercised (e.g. When resources become unavailable, what happens to a typical production scenario). | 6/13/97 |
| Test Case ID: | SFQ2-SMA.002 | Test Case Description: | Last Modified: |
| | | <p>EDC DAAC Production Run</p> <p>This test verifies the operability of science data production at the EDC DAAC. A production run, which is representative of a typical daily production run (one that will stress the system) using MODIS and/or PSTEERS scheduled using AutoSys. Data dependencies are exercised. The test is successful if the product is produced or the run waits for data availability. Production reports are generated and verified. End user notification is also verified.</p> | 6/19/97 |
| <u>Mapped Requirements:</u> | DADS0901#B,DADS2110#B,DADS2120#B,DADS2010#B,EOCD0560#B,EOCD0720#B,EOSD1010#B,EOSD0720#B,ESN-1206#B,IMS-1645#B,IMS-1700#B,PGS-0180#B,PGS-0250#B,PGS-0325#B,PGS-0330#B,SDPS0015#B,SDPS0016#B,SDPS0130#B,SMC-1325#B,SMC-1300#B,SMC-1600#B,S MC-1610#B,SMC-3335#B,SMC-3350#B,SMC-3385#B | | <p><u>Test</u></p> <p><u>Protection</u> plan using integrated MODIS or ASTER PGEs, some with PGE chaining (i.e. PGEs dependent on the completion of another PGE for input data) and the execution of multiple PGEs at the same time.</p> |
| <u>Prerequisite Conditions:</u> | SFQ1 has completed execution (needed input files if any, ingested for PGEs to be run). | | <p><u>Assumptions and Constraints:</u> which PGEs have successfully undergone SSI&T and whether input data is available for the PGEs. This information will be used to direct the development of production plan that meets the test criteria.</p> |
| <u>Expected Test Results:</u> | | | |

Functional Thread Test Case Mapping

| Thread ID: | SFQ2-SMA | Thread Description: | Last Modified: |
|---------------------------------|--|--|---|
| | | <p>Verify at each DAAC that:</p> <ol style="list-style-type: none"> 1) The science operations team can plan, schedule and execute a representative daily production run, including re-processing requests, using Autosys with dependencies. 2) The science operations team can conduct quality assurance (QA) checks on completed data. 3) The investigator team can perform remote QA from the Science Computing Facility (SCF). 4) The information management service (IMS) can be queried to verify proper metadata generation. 5) The end user notification is performed properly. 6) Emergency procedures during data production are exercised (e.g. When resources become unavailable, what happens to a typical production scenario). | 6/13/97 |
| Test Case ID: | SFQ2-SMA.003 | Test Case Description: | Last Modified: |
| | | <p>LARC DAAC Production Run</p> <p>This test verifies the operability of science data production at the LARC DAAC. A production run, which is representative of a typical daily production run (one that will stress the system) using CERES, MISR or MOPITT PGEs, is scheduled using AutoSys. Data dependencies are exercised. The test is successful if the product is produced or the run waits for data availability. Production reports are generated and verified. End notification is also verified.</p> | 6/19/97 |
| <u>Mapped Requirements:</u> | DADS0901#B,DADS2110#B,DADS2120#B,DADS2010#B,EOC-8150#B,EOCD0560#B,EOSD0720#B,EOSD1010#B,ESN-1206#B,IMS-1645#B,IMS-1700#B,PGS-0180#B,PGS-0250#B,PGS-0325#B,PGS-0330#B,SDPS0015#B,SDPS0016#B,SDPS0130#B,SMC-1300#B,SMC-1325#B,SMC-1600#B,S MC-1610#B,SMC-3335#B,SMC-3350#B,SMC-3385#B | | <p><u>Test</u></p> <p><u>Input</u> test plan using integrated CERES, MISR or MOPITT PGEs, some with PGE chaining (i.e. PGEs dependent on the completion of another PGE for input data) and the execution of multiple PGEs at the same time.</p> |
| <u>Prerequisite Conditions:</u> | SFQ1 has completed execution (needed input files if any, ingested for PGEs to be run). | | <p><u>Assumptions and Constraints:</u></p> <p>which PGEs have successfully undergone SSI&T and whether input data is available for the PGEs. This information will be used to direct the development of production plan that meets the test criteria.</p> |
| <u>Expected Test Results:</u> | | | |

Functional Thread Test Case Mapping

| Thread ID: | SFQ2-SMA | Thread Description: | Last Modified: |
|-----------------------------|--|--|--|
| | | <p>Verify at each DAAC that:</p> <ol style="list-style-type: none"> 1) The science operations team can plan, schedule and execute a representative daily production run, including re-processing requests, using Autosys with dependencies. 2) The science operations team can conduct quality assurance (QA) checks on completed data. 3) The investigator team can perform remote QA from the Science Computing Facility (SCF). 4) The information management service (IMS) can be queried to verify proper metadata generation. 5) The end user notification is performed properly. 6) Emergency procedures during data production are exercised (e.g. When resources become unavailable, what happens to a typical production scenario). | 6/13/97 |
| Test Case ID: | SFQ2-SMA.004 | Test Case Description: | Last Modified: |
| | | <p>NSIDC DAAC Production Run</p> <p>This test verifies the operability of science data production at the NSIDC DAAC. A production run, which is representative of a typical daily production run (one that will stress the system) using MODIS PGEs, is scheduled using AutoSys. Data dependencies are exercised. The test is successful if the product is produced or the run waits for data availability. Production reports are generated and verified. End user notification is also verified.</p> | 6/19/97 |
| <u>Mapped Requirements:</u> | DADS0901#B,DADS2110#B,DADS2120#B,DADS2010#B,EOCD-8150#B,EOCD0560#B,EOCD0720#B,EOCD1010#B,ESND05#B,ESN-1206#B,IMS-1645#B,IMS-1700#B,PGS-0180#B,PGS-0250#B,PGS-0325#B,PGS-0330#B,SDPS0015#B,SDPS0016#B,SDPS0130#B,SMC-1300#B,SMC-1325#B,SMC-1600#B,S MC-1610#B,SMC-3335#B,SMC-3350#B,SMC-3385#B | <p><u>Test</u></p> <p><u>Precondition:</u> SFQ1 has completed execution (needed input files if any, ingested for PGEs to be run).</p> <p><u>Method for Results Analysis:</u></p> | <p><u>Assumptions and Constraints:</u> which PGEs have successfully undergone SSI&T and whether input data is available for the PGEs. This information will be used to direct the development of production plan that meets the test criteria.</p> |

Functional Thread Test Case Mapping

| Thread ID: | SFQ2-SMA | Thread Description: | Last Modified: |
|---------------------------------|--|--|----------------|
| | | Verify at each DAAC that: 1) The science operations team can plan, schedule and execute a representative daily production run, including re-processing requests, using Autosys with dependencies. 2) The science operations team can conduct quality assurance (QA) checks on completed data. 3) The investigator team can perform remote QA from the Science Computing Facility (SCF). 4) The information management service (IMS) can be queried to verify proper metadata generation. 5) The end user notification is performed properly. 6) Emergency procedures during data production are exercised (e.g. When resources become unavailable, what happens to a typical production scenario). | 6/13/97 |
| Test Case ID: | SFQ2-SMA.005 | Test Case Description: | Last Modified: |
| | | Production Run w/ InterDAAC Dependencies | 6/16/97 |
| <u>Mapped Requirements:</u> | DADS0901#B,DADS1300#B,DADS1310#B,DADS1472#B,DADS1620#B,DADS2010#B,DADS2100#B,DADS2110#B,DADS2120#B,DADS2220#B, ESS2010#B,EOC-8150#B,EOSD0560#B,EOSD0720#B,ESN-1206#B,IMS-1645#B,IMS-1700#B,PGS-0180#B,PGS-0250#B,PGS- BTS#B 20#B,PGS-0325#B,PGS-0330#B,SDPS0015#B,SDPS0016#B,SMC-1315#B,SMC-1600#B,SMC-1610#B,SMC-3335#B,SMC-335 0#B,SMC-3385#B,SMC-3390#B | | |
| <u>Prerequisite Conditions:</u> | SFQ1 has completed execution (needed input files if any, ingested for PGEs to be run). | <u>Test</u> Reproduction plan using a MODIS PGE that is not already on the system to test dynamic acquire and run. | |
| <u>Expected Test Results:</u> | | <u>Assumptions and Constraints:</u> which PGEs have successfully undergone SSI&T on another DAAC but not on the DAAC where the test is to be run. Also, whether input data is available for dynamically acquired PGE. This information will be used thirect the development of a production plan that meets the test criteria. | |

Functional Thread Test Case Mapping

| Thread ID: | SFQ2-SMA | Thread Description: | Last Modified: |
|--------------------------------|---|--|----------------|
| | | <p>Verify at each DAAC that:</p> <ul style="list-style-type: none"> 1) The science operations team can plan, schedule and execute a representative daily production run, including re-processing requests, using Autosys with dependencies. 2) The science operations team can conduct quality assurance (QA) checks on completed data. 3) The investigator team can perform remote QA from the Science Computing Facility (SCF). 4) The information management service (IMS) can be queried to verify proper metadata generation. 5) The end user notification is performed properly. 6) Emergency procedures during data production are exercised (e.g. When resources become unavailable, what happens to a typical production scenario). | 6/13/97 |
| Test Case ID: | SFQ2-SMA.006 | Test Case Description: | Last Modified: |
| | | <p>Science Operations Team / SCF QA (GSFC)</p> <p>This test verifies the QA process involved with science data production. Products produced are QA'd at the GSFC DAAC and the responsible MODIS QA'd product metadata update is verified.</p> | 6/16/97 |
| <u>Mapped Requirements:</u> | DADS0010#B,DADS0020#B,DADS2440#B,DADS3120#B,EOSD0560#B,IMS-0350#B,IMS-0450#B,IMS-1520#B,IMS-1645#B,IMS-1700#B,PGS-0#B,PGS-1050#B,PGS-1060#B,PGS-1080#B,PGS-1090#B,PGS-1100#B,PGS-1110#B,PGS-1120#B,PGS-1130#B,PGS-1140#B,PGS-1170#B,PGS-#B,PGS-1180#B,PGS-1200#B,SCF-0200#B,SCF-0210#B,SCF-0220#B,SCF-0240#B,SCF-0230#B,SCF-0250#B,SDPS0050#B,SDPS0091#B,SMC-3340#B,SMC-3345#B,SMC-3350#B | | |
| <u>Prerequisite Condition:</u> | SFQ2.001 produces MODIS products. | <p><u>Test</u></p> <p>Modis data granules produced at the GSFC DAAC from SFQ2.001.</p> | |
| <u>Expected Test Results:</u> | | <p><u>Assumptions and Constraints:</u></p> <p>which PGEs have successfully undergone SSI&T and whether output data is available from those PGEs as a result of the successful completion of test case SFQ2.001</p> | |

Functional Thread Test Case Mapping

| Thread ID: | SFQ2-SMA | Thread Description: | Last Modified: |
|--------------------------------|---|--|----------------|
| | | <p>Verify at each DAAC that:</p> <ul style="list-style-type: none"> 1) The science operations team can plan, schedule and execute a representative daily production run, including re-processing requests, using Autosys with dependencies. 2) The science operations team can conduct quality assurance (QA) checks on completed data. 3) The investigator team can perform remote QA from the Science Computing Facility (SCF). 4) The information management service (IMS) can be queried to verify proper metadata generation. 5) The end user notification is performed properly. 6) Emergency procedures during data production are exercised (e.g. When resources become unavailable, what happens to a typical production scenario). | 6/13/97 |
| Test Case ID: | SFQ2-SMA.007 | Test Case Description: | Last Modified: |
| | | <p>Science Operations Team / SCF QA (LaRC)</p> <p>This test verifies the QA process involved with science data production. Products produced are QA'd at the LaRC DAAC and the responsible CERES/T / MISR SCF. The QA'd product metadata update is verified.</p> | 6/16/97 |
| <u>Mapped Requirements:</u> | DADS0010#B,DADS0020#B,DADS2440#B,DADS3120#B,EOSD0560#B,IMS-0350#B,IMS-0450#B,IMS-1520#B,IMS-1645#B,IMS-1700#B,PGS-0#B,PGS-1050#B,PGS-1060#B,PGS-1080#B,PGS-1090#B,PGS-1100#B,PGS-1110#B,PGS-1120#B,PGS-1130#B,PGS-1140#B,PGS-1170#B,PGS-#B,PGS-1180#B,PGS-1200#B,SCF-0200#B,SCF-0210#B,SCF-0220#B,SCF-0240#B,SCF-0230#B,SCF-0250#B,SDPS0050#B,SDPS0091#B,SMC-3340#B,SMC-3345#B,SMC-3350#B | | |
| <u>Prerequisite Condition:</u> | Q2.003 produces CERES / MOPITT / MISR products. | <p><u>Test</u></p> <p><u>GIFTES</u> / MOPITT / MISR data granules produced at the LaRC DAAC from SFQ2.003.</p> | |
| <u>Expected Test Results:</u> | | <p><u>Assumptions and Constraints:</u> which PGEs have successfully undergone SSI&T and whether output data is available from those PGEs as a result of the successful completion of test case SFQ2.003</p> | |

Functional Thread Test Case Mapping

| Thread ID: | SFQ2-SMA | Thread Description: | Last Modified: |
|---------------------------------|---|--|--|
| | | <p>Verify at each DAAC that:</p> <ol style="list-style-type: none"> 1) The science operations team can plan, schedule and execute a representative daily production run, including re-processing requests, using Autosys with dependencies. 2) The science operations team can conduct quality assurance (QA) checks on completed data. 3) The investigator team can perform remote QA from the Science Computing Facility (SCF). 4) The information management service (IMS) can be queried to verify proper metadata generation. 5) The end user notification is performed properly. 6) Emergency procedures during data production are exercised (e.g. When resources become unavailable, what happens to a typical production scenario). | 6/13/97 |
| Test Case ID: | SFQ2-SMA.008 | Test Case Description: | Last Modified: |
| | | <p>Emergency / Priority Procedures (GSFC)</p> <p>This test verifies the ability of the GSFC DAAC to implement appropriate actions in response to various emergency / priority situations. These situations include but are not limited to, 1) required input data unavailable (data unreadable due to disk hardware failure, data non-existent at the present time, etc.), 2) needed hardware resources unavailable (device failure, not available for allocation, etc.), 3) peak loading of system resources, 4) systems maintenance, 5) priority job directives.</p> | 6/19/97 |
| <u>Mapped Requirements:</u> | DADS0901#B,DADS1300#B,DADS1310#B,DADS1472#B,DADS1610#B,DADS1620#B,DADS2000#B,DADS2010#B,DADS2070#B,DADS2100#B, DADS2110#B,DADS2120#B,DADS2220#B,PGS-0165#B,PGS-0170#B,PGS-0270#B,PGS-0325#B,PGS-0330#B,PGS-0320#B,SDPS0015#B,SDPS0016#B,B,SMC-1300#B,SMC-1315#B,SMC-1325#B,SMC-1345#B,SMC-1360#B,SMC-3350#B,SMC-3390#B | | <p><u>Test</u></p> <p><u>Implementation</u> plan using integrated MODIS PGEs, some with PGE chaining (i.e. PGEs dependent on the completion of PGE for input data) and the execution of multiple PGEs at the same time.</p> |
| <u>Prerequisite Conditions:</u> | SFQ1 has completed execution (needed input files if any, ingested for PGEs to be run). | | <p><u>Assumptions and Constraints:</u> which PGEs have successfully undergone SSI&T and whether input data is available for the PGEs. This information will be used to direct the development of production plan that meets the test criteria.</p> |
| <u>Expected Test Results:</u> | | | <p><u>Methods for Results Analysis:</u></p> |

Functional Thread Test Case Mapping

| Thread ID: | SFQ2-SMA | Thread Description: | Last Modified: |
|---------------------------------|--|--|----------------|
| | | <p>Verify at each DAAC that:</p> <ol style="list-style-type: none"> 1) The science operations team can plan, schedule and execute a representative daily production run, including re-processing requests, using Autosys with dependencies. 2) The science operations team can conduct quality assurance (QA) checks on completed data. 3) The investigator team can perform remote QA from the Science Computing Facility (SCF). 4) The information management service (IMS) can be queried to verify proper metadata generation. 5) The end user notification is performed properly. 6) Emergency procedures during data production are exercised (e.g. When resources become unavailable, what happens to a typical production scenario). | 6/13/97 |
| Test Case ID: | SFQ2-SMA.009 | Test Case Description: | Last Modified: |
| | | <p>Emergency / Priority Procedures (EDC)</p> <p>This test verifies the ability of the EDC DAAC to implement appropriate actions in response to various emergency / priority situations. These situations include but are not limited to, 1) required input data unavailable (data unreadable due to disk hardware failure, data non-existent at the present time, etc.), 2) needed hardware resources unavailable (device failure, not available for allocation, etc.), 3) peak loading of system resources, 4) systems maintenance, 5) priority job directives</p> | 6/19/97 |
| <u>Mapped Requirements:</u> | DADS0901#B,DADS1300#B,DADS1310#B,DADS1472#B,DADS1610#B,DADS1620#B,DADS2000#B,DADS2010#B,DADS2070#B,DADS2100#B, DADS2110#B,DADS2120#B,DADS2220#B,PGS-0165#B,PGS-0170#B,PGS-0270#B,PGS-0325#B,PGS-0330#B,PGS-0320#B,PGS-0320#B,SDPS0015#B,SDPS0016#B,B,SMC-1300#B,SMC-1315#B,SMC-1325#B,SMC-1345#B,SMC-1360#B,SMC-3350#B,SMC-3390#B | | |
| <u>Prerequisite Conditions:</u> | SFQ1 has completed execution (needed input files if any, ingested for PGEs to be run). | <p><u>Test</u></p> <p>Run test plan using integrated MODIS or ASTER PGEs, some with PGE chaining (i.e. PGEs dependent on the output of another PGE for input data) and the execution of multiple PGEs at the same time.</p> | |
| <u>Expected Test Results:</u> | | <p><u>Assumptions and Constraints:</u></p> <p>which PGEs have successfully undergone SSI&T and whether input data is available for the PGEs. This information will be used to direct the development of production plan that meets the test criteria.</p> | |

Functional Thread Test Case Mapping

| Thread ID: | SFQ2-SMA | Thread Description: | Last Modified: |
|---------------------------------|---|--|----------------|
| | | <p>Verify at each DAAC that:</p> <ul style="list-style-type: none"> 1) The science operations team can plan, schedule and execute a representative daily production run, including re-processing requests, using Autosys with dependencies. 2) The science operations team can conduct quality assurance (QA) checks on completed data. 3) The investigator team can perform remote QA from the Science Computing Facility (SCF). 4) The information management service (IMS) can be queried to verify proper metadata generation. 5) The end user notification is performed properly. 6) Emergency procedures during data production are exercised (e.g. When resources become unavailable, what happens to a typical production scenario). | 6/13/97 |
| Test Case ID: | SFQ2-SMA.010 | Test Case Description: | Last Modified: |
| | | <p>Emergency / Priority Procedures (LaRC)</p> <p>This test verifies the ability of the LaRC DAAC to implement appropriate actions in response to various emergency / priority situations. These situations include but are not limited to, 1) required input data unavailable (data unreadable due to disk hardware failure, data non-existent at the present time, etc.), 2) needed hardware resources unavailable (device failure, not available for allocation, etc.), 3) peak loading of system resources, 4) systems maintenance, 5) priority job directives.</p> | 6/19/97 |
| <u>Mapped Requirements:</u> | DADS0901#B,DADS1300#B,DADS1310#B,DADS1472#B,DADS1610#B,DADS1620#B,DADS2000#B,DADS2010#B,DADS2070#B,DADS2100#B, DADS2110#B,DADS2120#B,DADS2220#B,PGS-0165#B,PGS-0170#B,PGS-0270#B,PGS-0325#B,PGS-0330#B,PGS-0320#B,SDPS0015#B,SDPS0016#B,B,SMC-1300#B,SMC-1315#B,SMC-1325#B,SMC-1345#B,SMC-1360#B,SMC-3350#B,SMC-3390#B | | |
| <u>Prerequisite Conditions:</u> | SFQ1 has completed execution (needed input files if any, ingested for PGEs to be run). | | |
| <u>Expected Test Results:</u> | | | |
| | | <p><u>Assumptions and Constraints:</u> which PGEs have successfully undergone SSI&T and whether input data is available for the PGEs. This information will be used to direct the development of production plan that meets the test criteria.</p> | |

Functional Thread Test Case Mapping

| Thread ID: | SFQ2-SMA | Thread Description: | Last Modified: |
|---------------------------------|---|--|----------------|
| | | <p>Verify at each DAAC that:</p> <ul style="list-style-type: none"> 1) The science operations team can plan, schedule and execute a representative daily production run, including re-processing requests, using Autosys with dependencies. 2) The science operations team can conduct quality assurance (QA) checks on completed data. 3) The investigator team can perform remote QA from the Science Computing Facility (SCF). 4) The information management service (IMS) can be queried to verify proper metadata generation. 5) The end user notification is performed properly. 6) Emergency procedures during data production are exercised (e.g. When resources become unavailable, what happens to a typical production scenario). | 6/13/97 |
| Test Case ID: | SFQ2-SMA.011 | Test Case Description: | Last Modified: |
| | | <p>Emergency / Priority Procedures (NSIDC)</p> <p>This test verifies the ability of the NSIDC DAAC to implement appropriate actions in response to various emergency / priority situations. These situations include but are not limited to, 1) required input data unavailable (data unreadable due to disk hardware failure, data non-existent at the present time, etc.), 2) needed hardware resources unavailable (device failure, not available for allocation, etc.), 3) peak loading of system resources, 4) systems maintenance, 5) priority job directives.</p> | 6/19/97 |
| <u>Mapped Requirements:</u> | DADS0901#B,DADS1300#B,DADS1310#B,DADS1472#B,DADS1610#B,DADS1620#B,DADS2000#B,DADS2010#B,DADS2070#B,DADS2100#B, DADS2110#B,DADS2120#B,DADS2220#B,PGS-0165#B,PGS-0170#B,PGS-0270#B,PGS-0325#B,PGS-0330#B,PGS-0320#B,SDPS0015#B,SDPS0016#B,B,SMC-1300#B,SMC-1315#B,SMC-1325#B,SMC-1345#B,SMC-1360#B,SMC-3350#B,SMC-3390#B | | |
| <u>Prerequisite Conditions:</u> | SFQ1 has completed execution (needed input files if any, ingested for PGEs to be run). | <p><u>Test</u></p> <p>Reproduction plan using integrated MODIS PGEs, some with PGE chaining (i.e. PGEs dependent on the completion of PGE for input data) and the execution of multiple PGEs at the same time.</p> | |
| <u>Expected Test Results:</u> | | <p><u>Assumptions and Constraints:</u></p> <p>which PGEs have successfully undergone SSI&T and whether input data is available for the PGEs. This information will be used to direct the development of production plan that meets the test criteria.</p> | |